

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-6, 8-23 and 25-33 are currently being prosecuted. The Examiner is respectfully requested to reconsider his rejections in view of the amendment and remarks as set forth below.

Entry of Amendment

Applicants submit that entry of this amendment and full consideration thereof is appropriate since it is being submitted with a Request for Continued Examination.

Allowable Subject Matter

It is gratefully acknowledged that the Examiner considers the subject matter of claims 4 and 21 to be allowable if re-written in independent form. Applicants have not yet re-written these claims in independent form since it is believed that the independent claims from which they depend are also allowable. However, it is noted that the limitations added in independent claims 1 and 16 relate the shape of the light-guiding apparatus which is the basis for the allowance of claims 4 and 21.

Rejection under 35 USC 102

Claims 1-3, 16, 18-24 stand rejected under 35 USC 102 as being anticipated by Stevens et al. (US Patent 5,900,131). This rejection is respectfully traversed.

The Examiner states Stevens et al. shows an optical measuring apparatus in Figure 3 including a light source 106, guiding module 302, and light-guiding apparatus 301. Continuous linear incident light irradiates a detection area 305 and receiving module 309 for processing said continuous linear incident light passed through or reflected by the detection area.

Applicants submit that claims 1 and 16 are presently amended to define over this reference. These claims have now been amended to make it clear that the light-guiding apparatus has a first open end and a second open end with the first open end being larger than the second open end. This description is used to define the light-guiding apparatus as being wedge-

shaped. It is noted that the Examiner has indicated that claims 4 and 21 will be allowable. Each of these claims describe the shape of the light-guiding apparatus as being either arc line type wedge-shaped or straight line type wedge-shaped. The limitations added to claims 1 and 16 having one end larger than the other defines the wedge shape as well. Applicants submit that this feature is not described by Stevens et al. In fact, Stevens et al. utilizes optical fibers which are typically of the same diameter. The reference does not in any manner teach the concept of having one end larger than the other.

In the present invention, the wedge shape is an important feature since it allows the use of a light-emitting diode arrays as the light source with the wedge-shaped apparatus being used to focus the light to a single line. This is not necessary in Stevens et al. since it apparently uses a standard laser. Applicants are avoiding the use of laser due to its expensive cost. Moreover, the standard dictionary meaning of wedge is on object that has one pointed edge and another thick edge. Given this meaning, the light-guiding apparatus as described in amended claims 1 and 16 now meets the definition since it states that the one end is larger than the other end. In view of this, Applicants submit that claims 1 and 16 are allowable for the same reasons that claims 4 and 21 have been indicated as being allowable. Accordingly, this rejection is overcome.

Claims 2-6, 8-15, 17-23 and 25-33 depend from these allowable claims and as such are also considered to be allowable. In addition, each of these claims recite other features that make them additionally allowable. The Examiner has already indicated the allowability of claims 4 and 21.

Rejection under 35 USC 103

Claims 5, 9, 14, 20, 22 and 27 stand rejected under 35 USC 103 as being obvious over Stevens et al. in view of Official Notice. This rejection is respectfully traversed.

The Examiner notes that Stevens et al. is silent in regard to the filled material for the light-guiding apparatus, is silent in regard to the light-mending lens, and does not clearly disclose the type of sensor used for the receiving module. The Examiner feels that these features would be obvious to one in the ordinary skill of the art. Applicants submit that these claims are allowable based on their dependency from allowable independent claims 1 and 16. Furthermore,

Applicants submit that Official Notice does not aid the Steven et al. reference in overcoming its deficiency in not describing the shape of the light guiding apparatus as being larger at one open end than the other. Accordingly, Applicants submit that this rejection is also overcome.

Claims 6, 23, 28 and 29 stand rejected under 35 USC 103 as being obvious over Stevens et al. in view of Kim (US Patent 5,842,273). This rejection is respectfully traversed.

The Examiner relies on Kim to show the use of known reflective materials for achieving total internal reflection. Applicants submit that even if Kim does teach this feature, these claims remain allowable based on their dependency from allowable independent claims 1 and 16. In particular, Kim does not aid Stevens et al. in overcoming its deficiency of not teach a light-guiding apparatus which is larger at one end than the other. Accordingly, Applicants submit that this rejection is overcome as well.

Claims 8, 10, 11, 13, 19 and 26 stand rejected under 35 USC 103 as being obvious over Steven et al. in view of Prober et al. (US Patent 5,306,618). This rejection is respectfully traversed.

The Examiner admits that Stevens et al. is silent regarding an excitation filter, is silent regarding an optical receiving module having an image module and an image sensing module, is silent regarding the image module having a focusing lens, and is silent regarding image sensing module having a filter lens and a dichroic mirror. The Examiner relies on Prober et al. to teach each of these features. However, Applicants submit that even the combination of Stevens et al. and Prober et al. does not teach the invention described in claims 1 and 16 since neither reference teaches the concept of the light-guiding apparatus having one end larger than the other.

Claim 12 stands rejected under 35 USC 103 as being obvious over Stevens et al. in view of Prober et al. and further in view of Simpson et al. This rejection is respectfully traversed.

The Examiner relies on Simpson et al. to teach an image module having a micro diffraction grating. Applicants admit that even if these three references are combined, they still

do not teach the concepts described in claims 1 and 16, namely having a light-guiding apparatus having one end larger than the other.

Claims 15 and 17 stand rejected under 35 USC 103 as being obvious over Steven et al. in view of Prober et al., Simpson et al. and further in view of Hayashizaki et al. (US Patent 6,120,667). This rejection is respectfully traversed.

The Examiner relies on Hayashizaki to teach a sample stage that moves. Applicants submit that even if this reference does teach this feature, it does not aid the other references in overcoming the deficiencies noted above. In particular, no combination of these four references teaches a light-guiding apparatus having one end larger than the other. Accordingly, this rejection is overcome as well.

Applicants have added new claims 30 and 31 which specifically describe that light-guiding apparatus as being wedge shaped. None of the references teach this feature either. Claims 1 and 16 were also amended to remove the word "continuous" which was added in the previous Amendment. This limitation has now been specifically recited in new claims 32 and 33. It is noted that the Examiner indicated that the allowability of claims 4 and 21 before the word "continuous" was added to the independent claims.

Conclusion

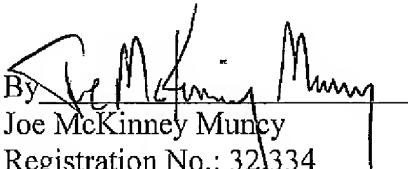
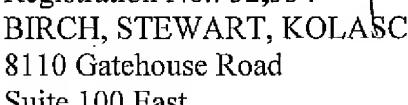
In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination. In view of this, reconsideration of the rejections and allowance of all the claims are respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert F. Gnuse Reg. No. 27,295 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,


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